



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

Handwritten initials: New

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/108,643 07/01/98 LENSSEN K PHN-16.435

LM02/0602

CORPORATE PATENT COUNSEL
US PHILIPS CORPORATION
580 WHITE PLAINS ROAD
TARRYTOWN NY 10591

EXAMINER

LEWIS, D

ART UNIT

PAPER NUMBER

2778

DATE MAILED:

06/02/00

Handwritten number: 6

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/108,643

Applicant(s)
Lenssen et al.

Examiner
David L Lewis

Group Art Unit
2778



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-10 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-10 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4 and 5 *DL*

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Title: Input Device

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The following title is suggested: Graphical Display Input Device With Magnetic Field Sensors.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. **Claims 1-10 are rejected under 35 U.S.C. 102(a) as being anticipated by Rallison et al. (5991085).**

5. **As in claim 1, Rallison et al.** teaches of a method for controlling a graphical element on a display through manipulation of an input device, **figure 1**, the method comprising: measuring a plurality of components of a magnetic field related to an orientation of the input device and controlling the

Title: Input Device

graphical element on the basis of the plurality of components, **column 19 lines 13-20, column 20 lines 37-52**, characterized in that the controlling, **figure 27 item 522**, step includes calculating a first signal on the basis of at least two of the plurality of components, the first signal representing a translation movement of the graphical element in a first direction on the display, **column 27 lines 17-58**.

6. **As in claim 6, Rallison et al.** teaches of an input device for controlling a graphical element on a display, **figure 1**, the input device comprising: a plurality of sensors for measuring respective components of a magnetic field related to an orientation of the input device and a controller for controlling the graphical element on the basis of the plurality of components, **column 19 lines 13-20, column 20 lines 37-52**, characterized in that the controller, **figure 27 item 522**, includes calculation means for calculating a first signal on the basis of data from at least two of the plurality of sensors, the first signal representing a translation movement of the graphical element in a first direction on the display, **column 27 lines 17-58**.

7. **As in claims 2 and 7**, Rallison et al. teaches of wherein the calculating step further comprises calculating a second signal on the basis of at least two of the plurality of components, at least one of the at least two of the plurality of components being different from the at least two components used for calculating the first signal, the second signal representing a translation movement of the graphical

Title: Input Device

element in a second direction on the display, **column 19 lines 13-20, column 27 lines 20-35**. As in **claim 3**, Rallison et al. teaches of wherein the controlling step includes an initialization step for measuring reference values of the plurality of components with respect to an orientation of the input device at an instant of executing the initialization step, **column 25 lines 18-20**, and wherein the calculating step calculates the first signal on the basis of a difference between current values and the reference values of respective ones of the at least two of the plurality of components, **column 25 lines 18-57**. As in **claim 4**, Rallison et al. teaches of wherein in said initialization step the measuring step measures three components of the magnetic field resulting in a measurement of the strength of the magnetic field, and wherein the initialization step is executed if the difference in strength of the magnetic field, between two successive executions of the measuring step, is larger than a predetermined threshold, **column 19 lines 15-20, figure 23, and column 25 lines 17-45**, wherein said drift/error corrections inherently applies to all sensors as mentioned on lines 15-20 of column 19, further, **column 31 lines 50-56**. As in **claim 5**, Rallison et al. teaches wherein the magnetic field is generated by a permanent magnet or an electromagnet, **column 21 lines 1-15**, wherein magnetoresistive elements are utilized in conjunction with coiling. As in **claim 8, Rallison et al. teaches of** wherein said input device further comprises means for measuring reference data and wherein calculating means calculates the first signal on the basis of a difference between current data and the reference data, **column 24 lines 32-65**. As in **claim 9**, Rallison teaches wherein at least one

Title: Input Device

of the plurality of sensors is an MR (magnetoresistive) sensor, **column 21 lines 1-18**. As in claim 10, Rallison teaches wherein two of the plurality of sensors comprise an MR sensor, **column 21 lines 1-18**, and wherein a third of the plurality of sensors comprises a Hall sensor, the three sensors being manufactured on a single substrate, wherein the printed circuit board, **column 20 lines 38-51**, of the tracker circuit 508, is equivalent to a substrate which can also include a Hall sensor, **column 31 lines 30-35..**

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 5999185, 5883564, 5767669, 5703623, 5629622, 5307072.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(703) 306-3026**. The examiner can normally be reached on MT and THF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on (703) 305-4938. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Serial Number: 09/108,643
Art Unit: 2778
Applicant: Lenssen et al.

Page 6

Title: Input Device

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:


(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Or hand-delivered to:

Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).


BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2700

Examiner: David L. Lewis

May 30, 2000